Fish Use of Stream Drainage Basins in the City of Bellevue

April 2009

Background and Data Sources

Current knowledge of the species of fish in Bellevue's streams and their distribution is based on stream typing work conducted in the summer of 2001 (The Watershed Company 2001) that involved assessing culverts as to whether fish could pass upstream and electrofishing; an electrofishing survey conducted at five sites in the Kelsey Creek basin in 2007 (City of Bellevue, unpublished data) and fish moved prior to sediment removal from two sediment ponds along Coal Creek (The Watershed Company 2007a); salmon spawning surveys conducted annually during the fall between 2001 and 2008 (Taylor Associates 2002; The Watershed Company 2003, 2004, 2005, 2006, 2007b, 2009); and peamouth surveys and spawning observations conducted by Bellevue staff and volunteers between the late 1990s and 2008 (City of Bellevue, unpublished data). Lake Washington shore use by warm water fish was documented by Washington Department of Fish and Wildlife in June of 2005 (Personal Communication, Chad Jackson, July 18, 2007). Fish use of the lake shore along Lake Sammamish has not been documented by the City of Bellevue.

North Sammamish Area

No fish were observed in the four streams in this basin. Lack of permanent water and steep gradients are limiting factors. The northernmost stream (08-0151) had the most significant flow of the group. Nevertheless, upstream of West Lake Sammamish Parkway, the largest pools were only two inches deep. The outflow from a small sediment catch basin into the culvert under West Lake Sammamish Parkway constitutes a five-foot fish barrier. Downstream of the culvert, the stream flows through an elaborate residential landscape with artificial pools and shallow concrete channels. The outfall into Lake Sammamish, a long, steep concrete culvert, represents a significant fish barrier. The other three streams have essentially the same features, each less than two inches deep and featuring significant fish barriers as they flow below West Lake Sammamish Parkway. Encroaching vegetation within the channels has caused organic substrates to accumulate, and emergent vegetation thrives in places. Each of these channels is no more than one to two feet wide at bank-full width upstream of West Lake Sammamish Parkway

See Bellevue's Basin Fact Sheet main web page for additional fish use information for Bellevue streams.

References Cited

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Williams, R. W., R. M. Laramie, and J. J. Ames. 1975. A Catalog of Washington Streams and Salmon Utilization. Washington Department of Fisheries, Olympia, Washington